

BIOMANUFACTURING TECHNOLOGY AND PARTNERSHIP (BioTAP) FUNDING INITIATIVE INFORMATION SHEET (OCT 2026)

OVERVIEW OF THE BIOTAP FI

The Biomanufacturing Technology and Partnership (BioTAP) Funding Initiative is a new RIE2030 initiative implemented by A*STAR to strengthen Singapore's competitiveness in biopharma manufacturing across conventional and emerging therapeutic modalities. BioTAP provides a coordinated platform for industry-relevant research, translation and capability development, connecting public-sector R&D capabilities with industry and ecosystem needs.

BioTAP seeks to:

1. **Expand and strengthen the competitiveness of existing biopharma manufacturing sites** through process optimisation, digitalisation and sustainability-driven innovation.
2. **Accelerate the development and manufacturing readiness of new modalities** by strengthening process development, scale-up and GMP-readiness capabilities.
3. **Advance innovation in biomanufacturing technologies** through the development, validation and scaling of novel technology platforms and enabling technologies towards industry adoption and deployment.

FUNDING MECHANISM

BioTAP will support research, translational and capability-building activities that address strategic biomanufacturing priorities and industry needs. Funding may cover both conventional modalities and emerging therapeutic modalities, with an emphasis on activities that strengthen manufacturing competitiveness, accelerate translation and create pathways towards adoption.

BioTAP will support activities through large-scale Programmes or small to medium-scale Projects, depending on the nature, scale and intended outcomes of activity.

Large scale programmes	Small to medium-scale Projects
<ul style="list-style-type: none"> • Strategic, mission-oriented initiatives addressing priority biomanufacturing challenges and opportunities • Coordinated management of multiple projects or research activities under a common governance framework led by a Programme Director. 	<ul style="list-style-type: none"> • Focused, time-bound research, translational or capability-building activities aligned with BioTAP strategic focus areas and industry needs. • Clear pathway towards translation, deployment, licensing, GMP-readiness and/or industry adoption. • Collaboration between public research performers, industry partners and ecosystem

<ul style="list-style-type: none"> • Programme-level outcomes including capability building, ecosystem development and industry engagement. • Indicative duration of up to five years. 	<p>stakeholders is encouraged where it strengthens impact and translation.</p> <ul style="list-style-type: none"> • BioTAP may support seed projects in emerging areas using a higher-risk, higher-reward approach, with clearly defined milestones and go/no-go decision points to enable rapid evaluation and fast-fail where appropriate. • Indicative duration of one to three years
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BIOTAP OUTCOMES

BioTAP aims to deliver measurable industry and ecosystem outcomes through its supported Programmes and Projects. These include increased industry R&D spend, new and expanded industry partnerships, deployed or licensed technologies, and follow-on collaborations catalysed beyond the directly funded activities.

OPEN GRANT CALL #1: ACCELERATE TRANSLATION & GMP READINESS

BioTAP's first open grant call, themed **Accelerate Translation & GMP Readiness**, seeks to bridge critical gaps between early-stage research and subsequent GMP manufacturing, clinical development and industry adoption. The call aims to support the development of robust, scalable processes, enabling manufacturing technologies and Chemistry, Manufacturing and Controls (CMC) capabilities needed to advance promising therapeutic assets and technologies towards manufacturing readiness.

Beyond conventional process scale-up and technology transfer, the call will support R&D efforts that address upstream translational bottlenecks, reduce technical and biomanufacturing risks, and generate the knowledge, tools and capabilities necessary to accelerate subsequent development. Emphasis will be placed on solutions with the potential for broader application across products, therapeutic modalities and the biomanufacturing ecosystem.

CHALLENGE STATEMENT

How might we accelerate the translation of promising therapeutic assets and biomanufacturing innovations by developing the processes and CMC capabilities needed to overcome manufacturing bottlenecks, reduce translational risks and enable progression towards GMP-ready manufacturing and clinical development?

SCOPE AND THEMATIC AREAS: ACCELERATE TRANSLATION & GMP READINESS

Proposals are invited under the following thematic areas, which collectively address the challenge statement above. The illustrative activities are not exhaustive, and proposals addressing related translational and manufacturing capability gaps aligned with the objectives of the call may also be considered.

1. Pre-GMP Process Development and Piloting

This thematic area aims to bridge the gap between laboratory-scale research and GMP manufacturing by supporting the development, optimisation, demonstration and validation of processes and enabling technologies in manufacturing-relevant environments. It seeks to build capabilities that de-risk subsequent scale-up, facilitate technology transfer and strengthen manufacturing readiness, particularly for emerging therapeutic modalities.

Projects may include, but are not limited to:

- Development and optimisation of robust, reproducible and scalable manufacturing processes;
- Pilot-scale demonstration, benchmarking and test-bedding of novel manufacturing technologies;
- Establishment of reusable workflows, platforms and process development capabilities that can potentially support multiple therapeutic assets or technologies;
- Development of biomanufacturing approaches to improve process consistency, efficiency and scalability and at competitive cost;
- Generation of process understanding, comparability data and supporting documentation to facilitate subsequent GMP implementation and technology transfer.

Proposals should clearly articulate the translational or manufacturing bottleneck being addressed, the expected advancement in process or technology readiness and how the proposed work would support subsequent GMP manufacturing, clinical development or industry adoption.

2. CMC Know-How and Analytical Capability Development

This thematic area aims to accelerate the translation of promising therapeutic assets and manufacturing technologies by strengthening the CMC knowledge, analytical methods and development frameworks needed to support product characterisation, process development, quality assurance and regulatory readiness. It recognises that gaps in CMC expertise, analytical capabilities and the systematic application of prior knowledge can be significant barriers to the development and manufacturing readiness of emerging therapeutic modalities.

Projects may include, but are not limited to:

- Development of innovative, data-driven or model-based approaches to facilitate/accelerate CMC development;
- Development of fit-for-purpose analytical methods for product characterisation, potency, purity, safety and comparability;
- Consolidation and application of prior knowledge including the development of reusable CMC knowledge bases, tools and standardised workflows across products or modalities;
- Establishment of CMC strategies and frameworks to improve process and product understanding;

Where appropriate, proposals should demonstrate how the resulting CMC knowledge, analytical methods or enabling capabilities could be reused or applied beyond a single product or project.

INTENDED OUTCOMES

Projects supported under this call should contribute towards de-risking the translation of promising therapeutic assets and manufacturing technologies through measurable advances in process development, analytical readiness, CMC capabilities and/or manufacturing robustness.

Expected outcomes may include validated or demonstrated processes, qualified analytical methods, reusable technology platforms and development frameworks, or technical evidence and documentation that facilitate subsequent GMP implementation, clinical development and industry adoption.

Projects that generate broadly applicable capabilities and know-how with the potential to benefit multiple industry stakeholders are particularly encouraged.

Projects must commit to industry R&D spending (IRS) and/or industry partnerships as key performance indicators (KPIs), with proposed targets articulated in the application. The Tracking Indicators (TIs) listed in Annex A are optional; project teams have the flexibility to select these and/or propose other appropriate TIs aligned with their project's scope and intended outcomes. The KPI and illustrative TI definitions are set out in **Annex A**.

PROJECT TYPES AND FUNDING

Two types of Projects are open for application under the Accelerate Translation & GMP Readiness grant call: Core Projects and Seed Projects.

	Core Project	Seed Project
Funding quantum (including 30% overheads)	Up to S\$5M	Up to S\$500,000
Project duration	Up to 3 years	12-18 months
Project intent	Support substantive R&D efforts that advance promising therapeutic assets, manufacturing technologies or enabling platforms towards validation, manufacturing readiness and eventual industry adoption. Projects should demonstrate established scientific or technical feasibility and a credible translational pathway.	Support early-stage, high-risk, high-reward research to establish proof-of-concept and technical feasibility for novel approaches. Projects may also form part of broader research vision, lay the groundwork for more substantive R&D efforts.
Expected outcome	Measurable advancement in technology or manufacturing/GMP readiness and industry deployment/adoption	Proof-of-concept or feasibility evidence supporting a clear go/no-go decision and, where

		successful, further R&D or translational development.
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Regardless of type of project, proposals should:

- address a clearly defined and material knowledge or capability gap in biomanufacturing;
- articulate the translational or manufacturing challenge being addressed and its relevance to industry needs;
- establish the current state of development and the advancement expected through BioTAP funding;
- define measurable outputs, milestones and appropriate decision points to the proposed scope and maturity of the project;
- demonstrate a credible pathway towards subsequent GMP implementation, technology transfer, clinical development, licensing and/or industry adoption;
- where relevant, create reusable capabilities, technologies or know-how with applicability beyond a single product and project; and
- deliver on industry R&D spending (at a gearing ratio of 0.4) and/or industry partnerships as part of the project's performance indicators.

GRANT CALL TIMELINE

Event	Date
Grant call launch	30 Oct 2026 (Fri)
Submission deadline	8 Jan 2027 (Fri), 5:00pm (Singapore time)
Review process	Q1 2027
Revision cycle	Mar – Apr 2027
Final review	Apr – May 2027
Award	May 2027 onwards

ELIGIBILITY CRITERIA

Applicants should ensure that they meet the eligibility criteria set out for the relevant BioTAP call. Unless otherwise specified in the call documentation, the Lead Principal Investigator (Lead PI) should:

- hold at least a 0.7 FTE primary appointment in a Singapore publicly funded research organisation, institute of higher learning, or public healthcare institution;
- conduct or lead research activities in Singapore; and
- have the relevant scientific or technical background, experience and institutional support to direct and deliver the proposed project.

Co-Investigators and Team Leads should hold an appointment in an eligible Singapore public-sector research institution. Researchers in non-faculty appointments, including postdoctoral researchers and

research scientists, may be considered as Lead PI where they meet the stated criteria and their Host Institution confirms appropriate support and appointment coverage for the grant period.

BioTAP grant funding will generally be awarded to eligible Singapore public-sector research performers. Industry partners, overseas institutions and other external collaborators may participate and contribute expertise, technology, data, facilities, manpower or other in-kind support, but will not receive grant funding unless otherwise stated in the relevant call.

Requests for exceptions to the eligibility criteria may be considered on a case-by-case basis. Applicants should approach the BioTAP Coordinating Office through their institutional research office **at least seven (7) days** before the submission deadline for any waiver request.

INSTITUTIONAL QUOTA

To support a focused and competitive evaluation process, there will be an institutional application quota imposed on each institute, as appended below. Institutions are encouraged to align their internal review and selection processes to support institutional prioritisation and adherence to the quota prior to submissions.

Institution	Core Project	Seed Project
National University of Singapore (NUS)	2	4
Nanyang Technological University (NTU)	2	4
A*STAR	2	4
All other public research institutions in Singapore	1 each	2 each

SUBMISSION DETAILS

Applications to the BioTAP open grant calls should be submitted using the prescribed application form. The Host Institution's Office of Research (ORE) is responsible for submitting the final list of eligible proposals to the BioTAP Mailbox (BioTAP@a-star.edu.sg) by the stipulated deadline. The submission deadline for the Accelerate Translation & GMP Readiness grant call is **8 January 2027, Friday, 5:00pm (Singapore Time)**.

EVALUATION AND APPROVAL

All proposals will undergo a structured review and approval process. Technical evaluation will be conducted with input from external technical advisors and, where applicable, domain-specific committees. Proposals recommended for support will be reviewed and endorsed by the Biomanufacturing Oversight Committee (BOC).

Proposals will generally be assessed against the following considerations:

- **Strategic relevance to BioTAP priorities**, including whether the proposal addresses a strategic focus area, problem statement or ecosystem gap, and contributes to Singapore's biomanufacturing competitiveness through strengthening of existing processes or building novel capabilities.

- **Scientific and technical merit**, including scientific soundness of the approach and methodology, novelty and differentiation from existing technologies, and where applicable, quality of preliminary data or technical validation.
- **Translational potential and pathway to adoption**, including the feasibility and industry adoptability the proposed technology or platform, and the clarity of the pathway to impact such as industry R&D spend, deployment, licensing, industry partnerships or other downstream outcomes.
- **Strength of the team and partnerships**, including the track record, relevant expertise and commitment of the Lead PI and key team members, and whether the team brings together the complementary capabilities required to deliver the project and maximise impact.
- **Quality of the implementation plan, risk management and budget reasonableness**, including the clarity of milestones, deliverables and go/no-go decisions points; appropriateness of the workplan and responsibilities; identification and mitigation of technical, regulatory, adoption and execution risks; and reasonableness of the requested budget relative to the proposed scope and expected outcomes.

POST-AWARD MANAGEMENT

Awardees will be expected to comply with the prevailing institutional grant terms, conditions and reporting requirements. Both Seed and Core projects will be subjected to review, outlined in the table below:

Review	Core Project	Seed Project
Annual Review	Written report	Not required
Mid-term Review	Presentation to the BOC	
Final Review	Written report and presentation to the BOC	

- Reviews will assess progress against approved milestones, deliverables and KPIs, budget utilisation, material risks and any need for course correction.
- The BioTAP CO may request programme or project teams to present progress to the BOC where appropriate and may continue to seek updates on relevant Tracking Indicators (TIs) for up to three (3) years following programme or project completion.

CONTACT INFORMATION

For further information and enquires, please contact the BioTAP Coordinating Office at BioTAP@a-star.edu.sg.

ANNEX A – BioTAP KPIs and TIs (*Optional*) and definitions

KPI	Definition
Amount of industry R&D spending on R&D (IRS)	This refers to the investment that a company commits to spend in Singapore on R&D activities as a result of projects funded by the Biomanufacturing Technology and Partnership FI. It comprises cash and/or in-kind contributions.
No. of industry partnerships	This refers to public-private-partnerships in key opportunity areas, including collaborative industry projects with partners such as pharma companies, CDMOs, CROs, and biotech firms.

TI (<i>Optional</i>)	Definition
No. of technologies deployed/licensed	This refers to technologies that are adopted, scaled, or licensed by industry partners for implementation in real-world manufacturing settings
No. of additional 1:1 projects catalysed	This refers to bilateral collaboration that companies initiate independently with A*STAR with scope of research activities beyond the programmes funded under the Biomanufacturing Technology and Partnership FI.